MAR 11 1969
Pam 06 1
University
THE BOREAL INSTITUTE
LIBRARY

ARCTIC STATION

VERSITY OF COPENHAGEN

POLAR
PAM
130
POLARPAM

ARCTIC STATION
UNIVERSITY OF COPENHAGEN

UNIVERSITETETS ARKTISKE STATION
COPENHAGEN 1968

MANUSCRIPT: G. Høpner Petersen
Zoological Museum, University of Copenhagen

PHOTOS: Grønlands tekniske Organisation
Jens Böcher
G. Høpner Petersen

COVER: Aerial photograph of Godhavn and Arctic Station
(phot: Geodetic Institute, Copenhagen)

Contents

Brief information and addresses 5

The Arctic Station on Disko Island, Greenland.. 7

- Location, travel information 7
- Affiliation and staff 8
- Guests 9
- Hunting and fishing regulations 11
- The Station's territory 12
- Buildings 13
- Map of the area 14
- Vessels 18
- Field huts 18
- Godhavn township 18
- Geology of the area 21
- Climate, hydrography, light conditions, clothing 22
- The Station's history.. 22

Publications from the Danish Arctic Station 23

List of works referring to the Arctic Station and Greenland.. .. 26

List of maps of the area 27

Brief information and addresses

Copenhagen University's Arctic Station in Godhavn is a scientific institute attached to the Faculty of Mathematics and Natural Sciences of the University of Copenhagen.

The purpose of the Station is to provide a centre for arctic research, mainly within the biological sciences.

ADDRESSES:

The Station in Greenland:

Universitetets Arktiske Station
3953, Godhavn, Greenland.
Cable address: Arktostat, Godhavn.

The Board of Directors in Copenhagen:

Universitetets Arktiske Station
Frue Plads
1168, Copenhagen K, Danmark.
Cable address: Arktostat, Copenhagen.

The Library:

Universitetets Arktiske Station
Library
L.E. Bruunsvej 10
2920, Charlottenlund, Danmark.
(Note: the Library has the same address as the "Arktisk Institut", a foundation where several Danish arctic activities are coordinated).

APPLICATION FOR STAY must be sent to the Board by the end of January, accompanied by a form which can be obtained from the Board.

REPORT ABOUT THE STAY must be sent to the Board not later than one month after the termination of the stay. The report will be printed in the Station's yearly report, possibly in an abbreviated edition.

REPRINTS: Papers in which material from the Arctic Station are used must be offered to the Station, which is entitled to buy up to 200 reprints for distribution in the series: "Publications from the Danish Arctic Station on Disko Island".

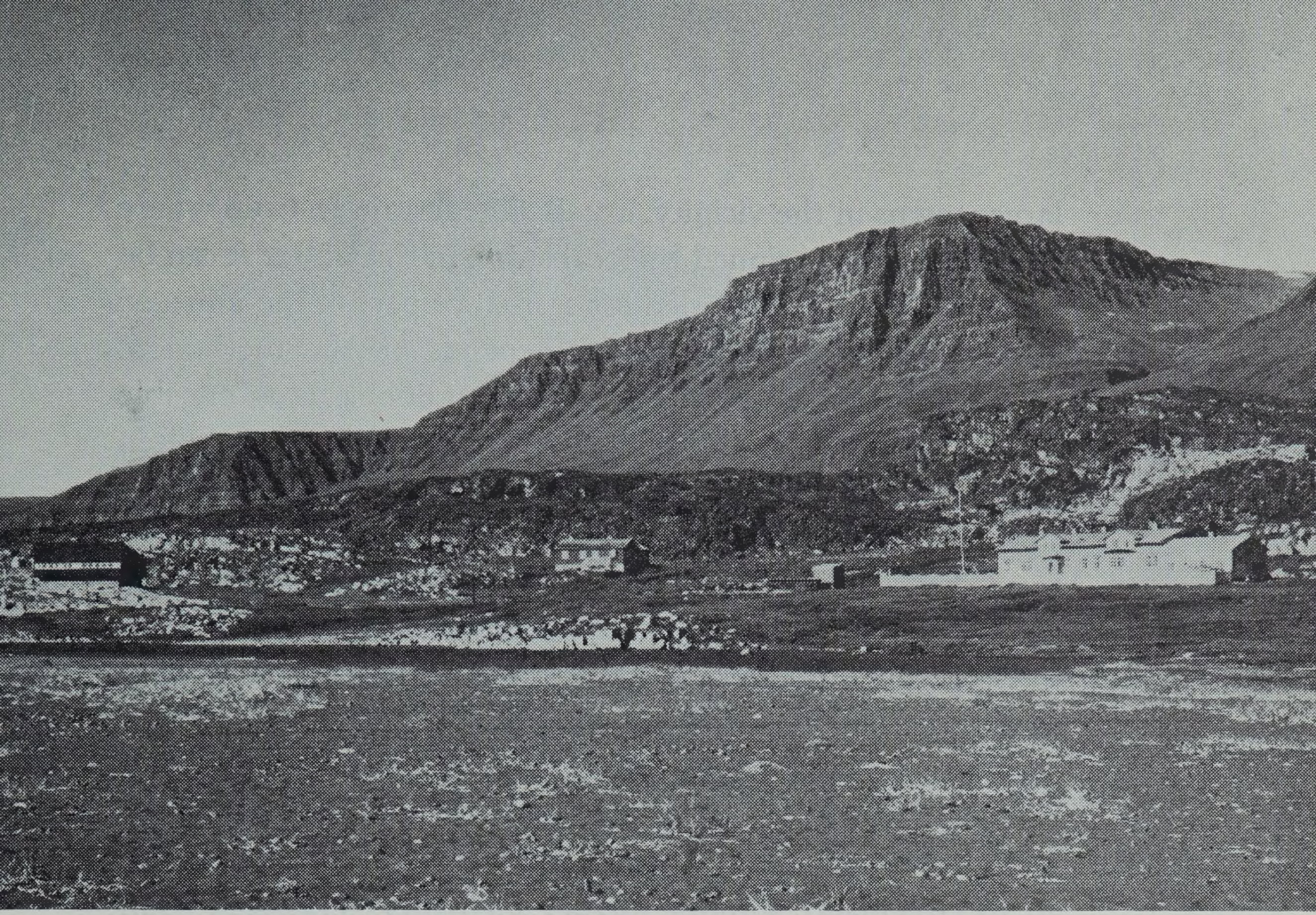


Fig. 1. The Arctic Station. In the foreground is the "Sorte Sand" and the Lagoon. The buildings are, from left: the new building, the scientific leader's house, a small house for the water pump above the warm brook, the old building with the technician's appartment, the workshop and garage-building. Behind the buildings are the gneissic rocks and then the tertiary volcanic layers.

The Arctic Station on Disko Island, Greenland

LOCATION
TRAVEL
INFORMATION

The Arctic Station is situated near Godhavn, on Disko Island off the coast of West-Greenland at 69°15′N, 53°34′W. It is possible to travel to Godhavn either by air via Søndre Strømfjord or by sea from Copenhagen. As a rule the journey from Søndre Strømfjord to Godhavn is made via Egedesminde by helicopter and from there by boat. It takes about five hours to sail from Egedesminde to Godhavn. From Copenhagen it is also possible to go directly to Godhavn by ships crossing the North Atlantic (only a few ships each year), or to one of the larger towns in the vicinity, usually Egedesminde, from where the journey is continued by local ships. In the winter it can be necessary to go by dog-sled for a smaller part of the journey.

The duration of the journey depends on the method of transportation and on the climatic conditions. It is possible to accomplish the flight in less than 24 hours, but more often the journey is delayed several days due to bad flying conditions over the coastal area. By sea the trip can be made in 8 to 12 days depending on the ships and stations en route. As a rule the journey can only be made in the period from April to December. There is one hotel at the air terminal at Søndre Strømfjord and one in Egedesminde.

Further details can be obtained from Kongelige Grønlandske Handel, Strandgade, 1401, København K, telephone SU 9810. Travelers from Scandinavian countries can buy a ticket and go to Greenland without further formality. Travelers from other contries must have a valid passport to Denmark and if necessary also a visa and vaccination certificate, dependent on which country they come from.

The currency is Danish kroner.

AFFILIATION AND STAFF

The Station is attached to the Faculty of Mathematics and Natural Sciences of Copenhagen University. The faculty appoints a board composed of three or four scientists representing various biological disciplines. At present (1968) the Board consists of: professor T.W. Böcher, D. Sc., professor M. Køie, D. Sc., and Finn Salomonsen, D. Sc. The board, which has its seat in Copenhagen, appoints a scientist and a technician to the Station in Greenland; they also appoint a part-time librarian in Copenhagen to catalogue the books of the library and send them from Copenhagen to Godhavn.

The scientific leader is appointed for a period of three years. His main task is to carry out a scientific investigation which he has personally suggested and planned, using the Station as a base. He will give guests scientific assistance and is

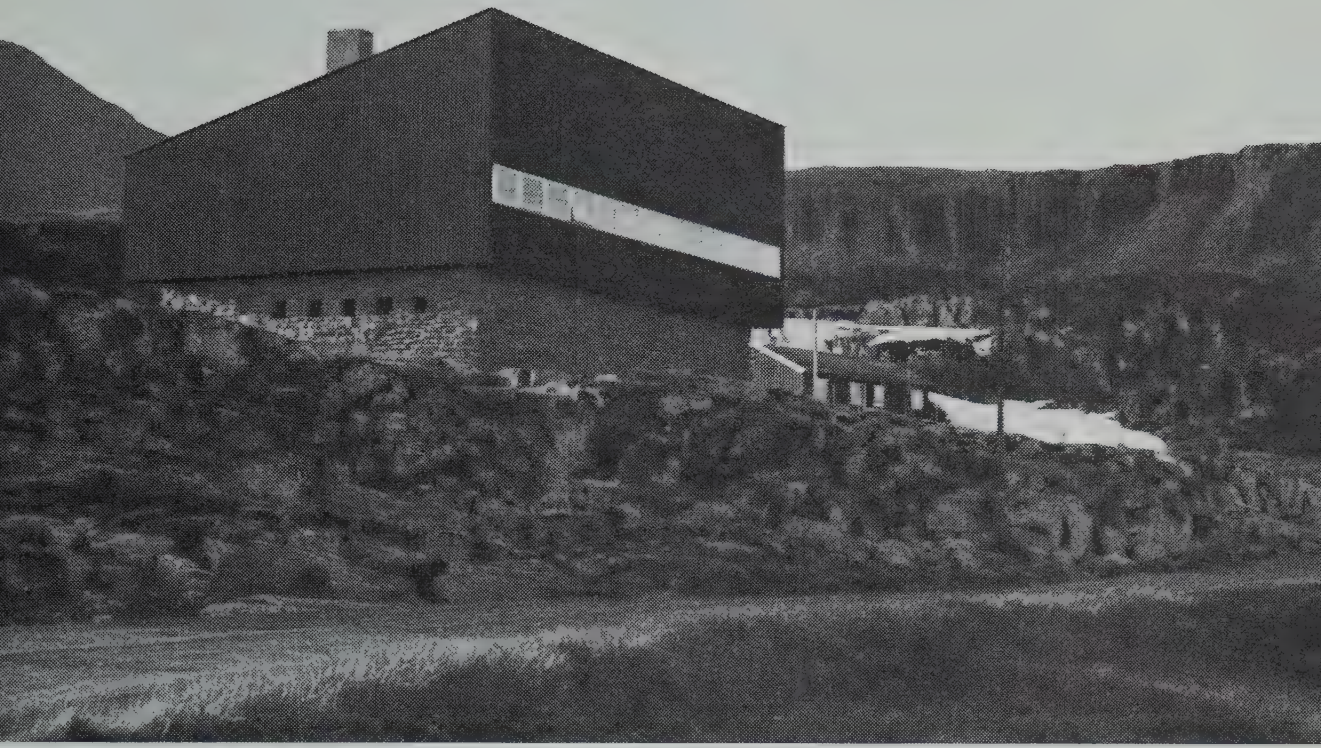


Fig. 2. The new building and behind this the scientific leaders house. Behind and to the right of the buildings is the "Østerlien", the slope of the breccie lave.

authorized to coordinate the use of the boats and equipment which belong to the Station.

The manager attends to the daily functions of the Station, such as the supply of water and fuel, heating, and matters concerning room and board. Moreover, the Station employs some Greenlanders especially to navigate the boats and take care of transport by dog-sled.

GUESTS

Scientists who wish to work at the Station must submit an application with a reasonable programme to the Board at least four months in advance. The Board allocates priority. About twelwe guests can be accommodated. Beds and bedding are provided. The manager provides the meals, which cost 35 kroner (1968) per person per day. It is not possible to be on own board. The possibilities for a stay during winter are limited.

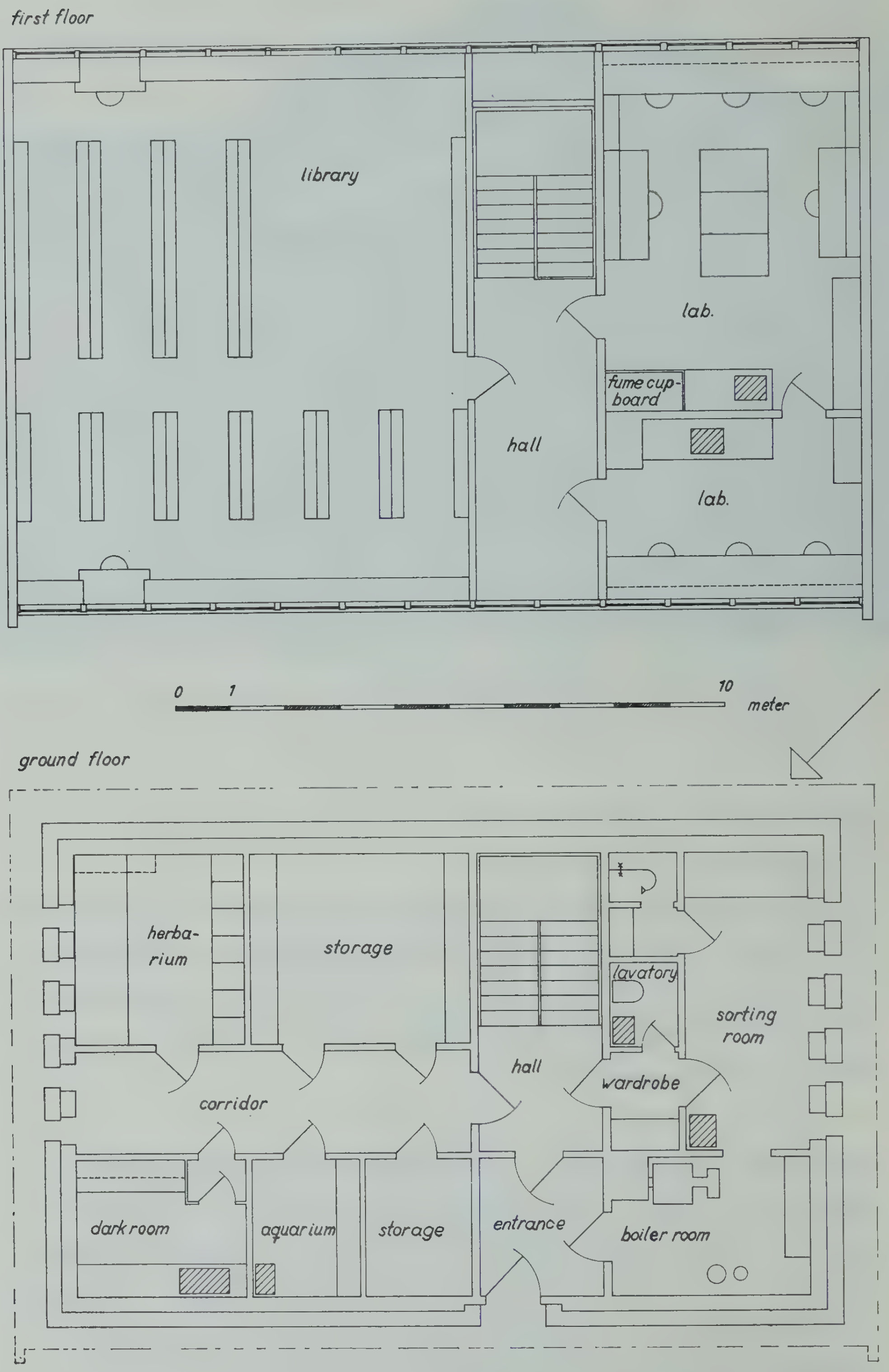


Fig. 3. The new building.

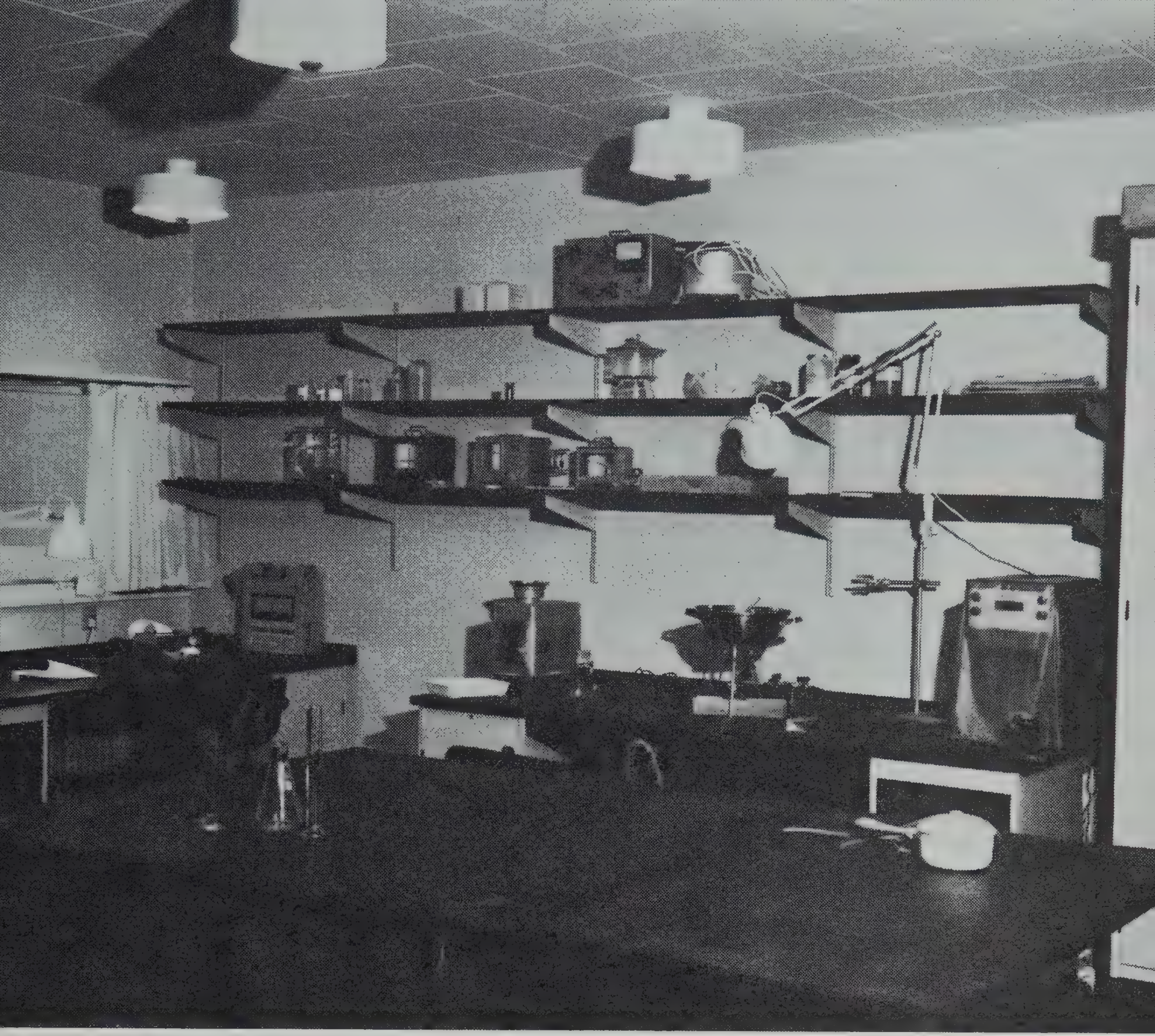


Fig. 4. The new laboratory.

HUNTING AND FISHING REGULATIONS

A licence is required for hunting and fresh water fishing. Persons who are not residents of Greenland are not permitted to hunt sea mammals and the only land mammals they are allowed to hunt are hares, which are very rare near Godhavn. Fishing with trout-net is prohibited. Moreover, there are a large number of closed season regulations, about which information can be obtained at the Station.

The following wild life reserves are situated in Disko Bay: Brændevinsskærene, Rotten and the Satuarssuit Islands near Grønne Ejland. Landing is not permitted at any of these places.

THE STATION'S TERRITORY

The area surrounding the Station is preserved and is thus prevented from becoming a built-up area. The area called "Engelskmandens Havn" is also botanically protected and is a part of the Station's sphere of interest.

The area around the Arctic Station offers a great variety of different landscape types and biotopes. Surrounding the lagoon in front of the Station there is a sand beach community on the isthmus and a marsh community along the protected shore. Behind the Station, on Østerlien, there is a varied series of dwarf shrub communities (moors), low willow scrub and very rich herb communities with numerous southern species. Above Østerlien and on many places in the nearby Blæsedal there are many types of fell fields with extremely sparse vegetation. These open communities are caused partly by solifluction, partly by strong wind or weathering. Up in the mountains, in ravines and along the shady sides there are communities dominated by long lasting snow cover. In Blæsedal there is a large fresh-water lake and there are many smaller lakes and waterholes in the bedrock terrain around Godhavn. More on the vegetation and the flora in Publ. D. Arct. St., nr. 38 and in Böcher, Holmen & Jakobsen 1968.

The shore just off the Station is a marine foreland made up of black sand. The rest of the coastline in the area is either rocky shores or steep cliffs. Sand and gravel deposits are most common on the deltas built up by the rivers' discharge. On the west side of Disko Island are large sand and mud areas. The shore is often influenced by a heavy surf which together with the steep cliffs makes landing impossible on long stretches of the coast. The vertical tidal range is about 2 meters; the sea bottom falls off steeply and the 100 m depth curve runs close to the coast. In Disko Bugt there is a level bottom at 300-400 m with some of the biggest prawn grounds in the world. The greater part of the bottom is a flooded mountainous landscape. The shore is washed by the West Greenland Current during the summer and by the Canadian

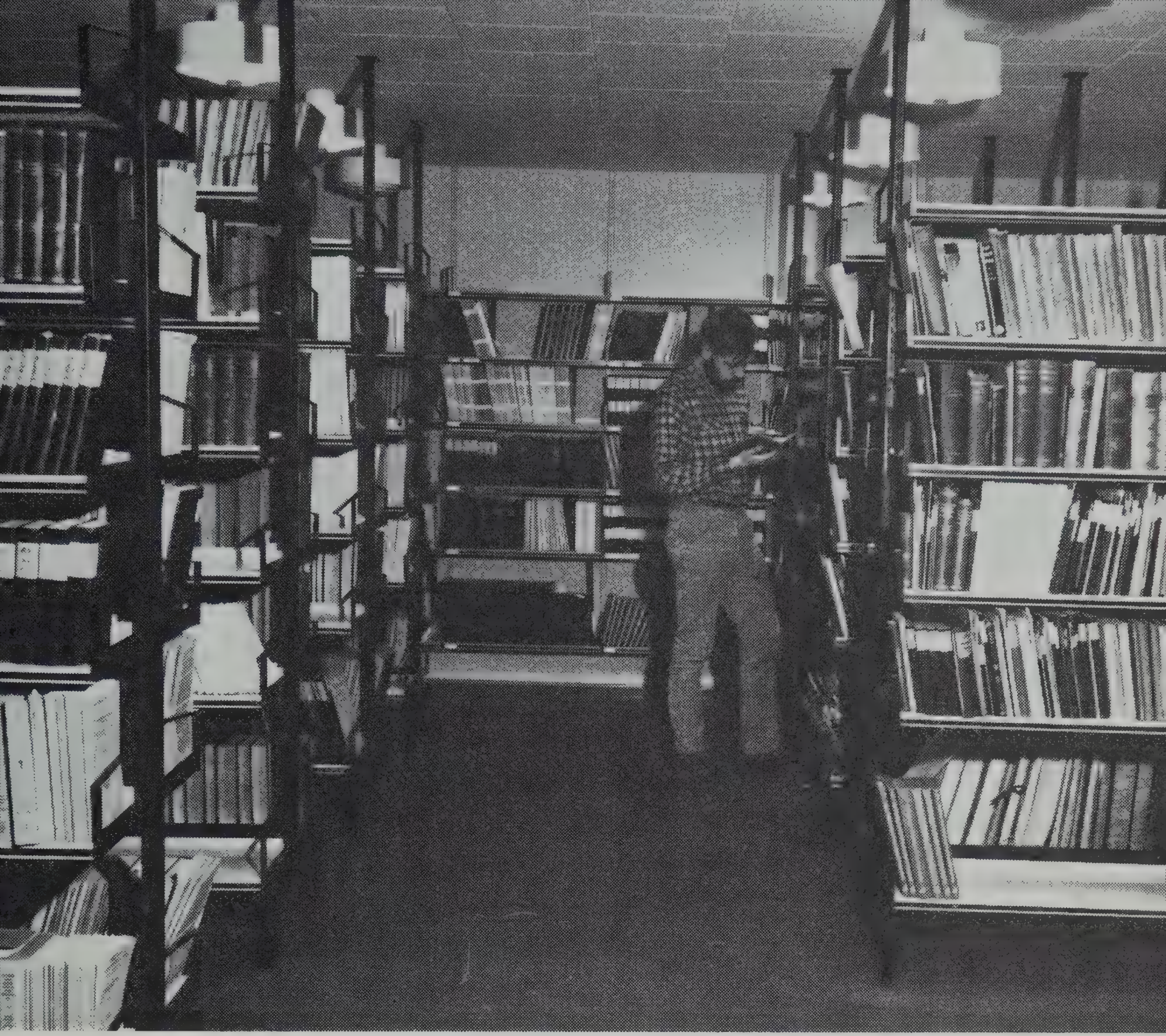
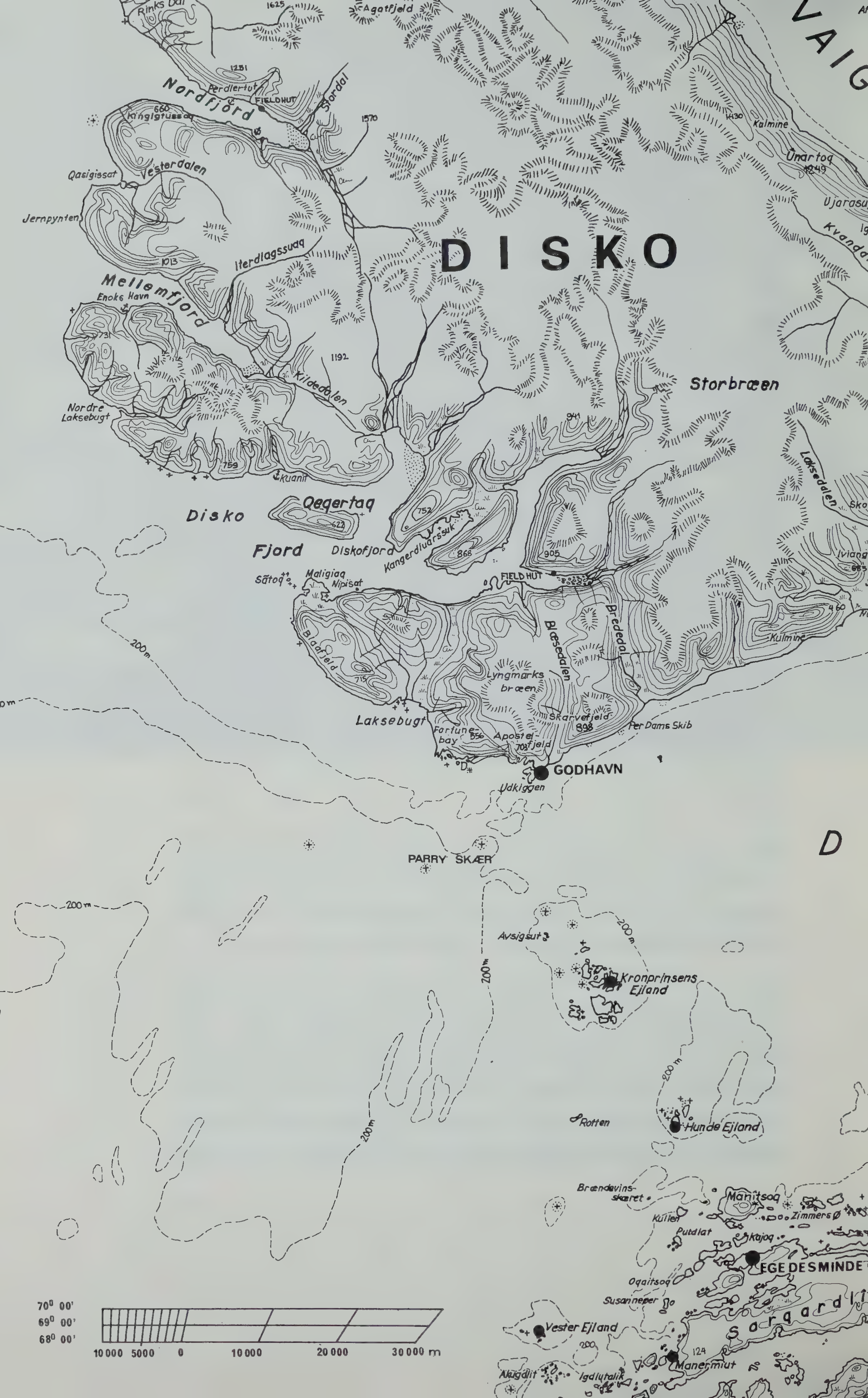


Fig. 5. The new library.

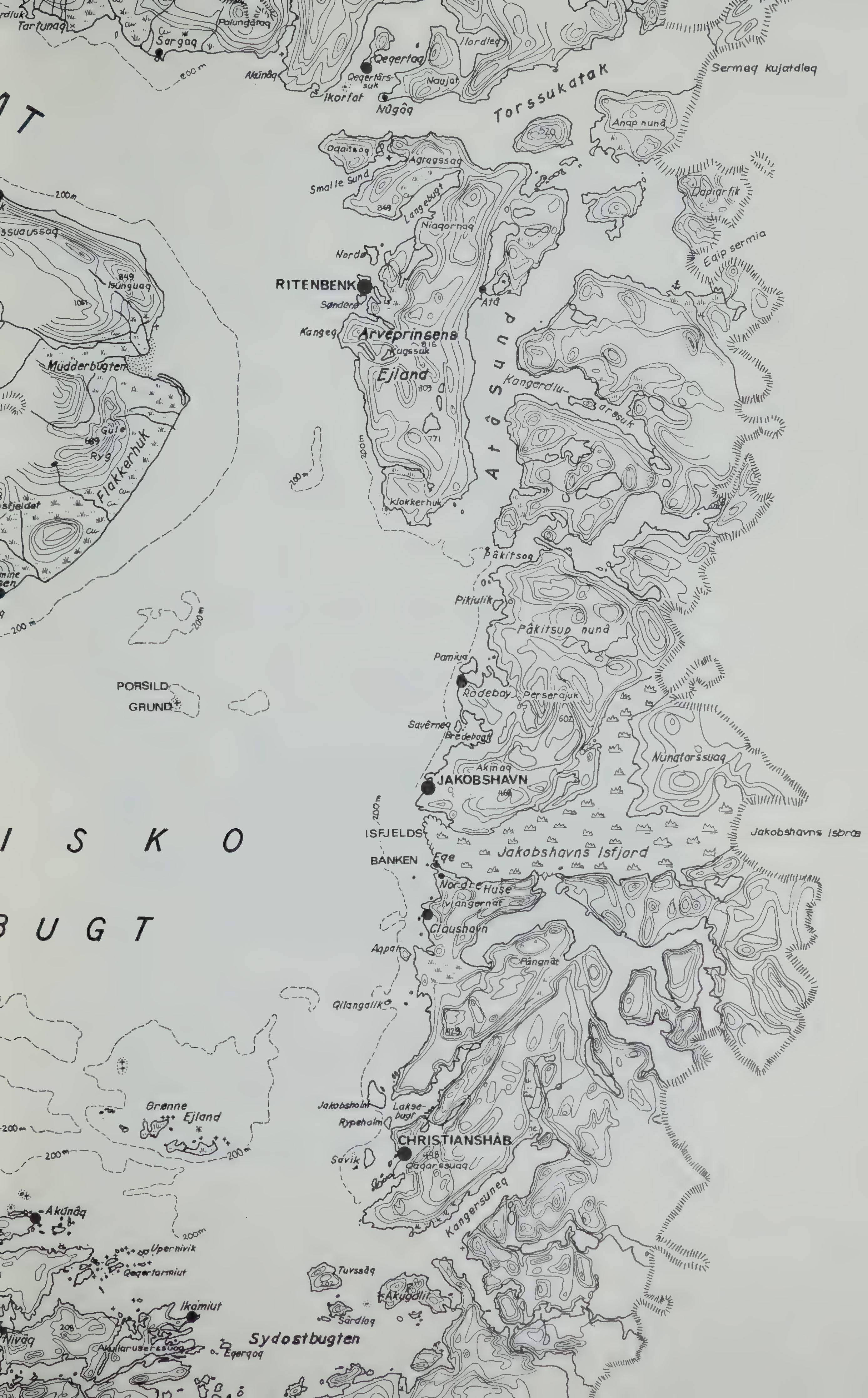
Polar Current during winter. In Disko Bugt flow hundreds of huge icebergs originating from Jakobshavns Isfjord. Many ground just off Godhavn. More on the hydrography is found in the Publications from the Danish Arctic Station nr. 39.

BUILDINGS

The original building is a two-story wooden structure. On the ground floor are the manager's residence, laboratories and two guestrooms. On the upper floor there are seven guestrooms and space for storage. Except for a few of the rooms which have a fireplace, the building is centrally heated. Nearby there is a brick building containing workshops and garages.



Rinks Dal
1625
Agatfjeld
VAIG
1281
Perdlertut
FIELDHUT
Nordfjord
Stordal
660
Kingigtussaq
1570
1430
Kalmine
Ûnartoq
1249
Qasigissat
Vesterdalen
Ujarasu
Jernpynten
1013
Iterdlagssuaq
DISKO
Kvand
Mellemfjord
Enoks Havn
731
1192
Kildedalen
Storbræen
Nordre Laksebugt
941
Laksedalen
759
Ikuanit
Qeqertaq
752
Disko
624
Fjord
Diskofjord
Kangerdluarssuk
868
905
Iviang
685
Sâtoq
Maligiaq
Nipisat
FIELD HUT
460
Brededal
Blæsedalen
Blaafjeld
715
Lyngmarks bræen
Kulmine
200 m
Skarvefjeld
898
Per Dams Skib
Laksebugt
Fortune-bay
856
Apostelfjeld
703
GODHAVN
Udkiggen
D
PARRY SKÆR
200 m
Avsigsut
200 m
200 m
Kronprinsens Ejland
200 m
200 m
Rotten
Hunde Ejland
Brændevins-skæret
Manitsoq
Kullen
Zimmers Ø
Putdlat
Kajoq
EGEDESMINDE
Oqaitsoq
Susanneper
Sargardl
Vester Ejland
200
124
Manermiut
Aâugdlit
Igdlutalik
70° 00'
69° 00'
68° 00'
10 000
5000
0
10 000
20 000
30 000 m


rdluk
Tartunaq
Sargaq
Palungâtaq
Qeqertaq
Ilordleq
Akúnâq
Qeqertârssuk
Ikorfat
Naujat
Nûgâq
Torssukatak
Sermeq kujatdleq
200 m
AT
Anap nunâ
520
Qaitsoq
Agpagssaq
Smalle Sund
369
Langebugt
Niaqornaq
Qapiarfik
Eqip sermia
Nordø
RITENBENK
Søndero
Atâ
Kangeq
Arveprinsens
Ejland
816
Kugssuk
809
771
Atâ Sund
Kangerdluarssuk
200 m
ssuaussaq
849
Isúnguaq
1061
Mudderbugten
Gule
689
Ryg
Flakkerhuk
sfjeldet
mine
sen
200 m
Klokkerhuk
Pâkitsoq
Pikiulik
Pâkitsup nunâ
Pamiua
Rodebay
Perserajuk
602
Savêrneq
Bredebugt
Nunatarssuaq
Akinaq
JAKOBSHAVN
468
PORSILD
GRUND
ISFJELDS
BANKEN
Eqe
Jakobshavns Isfjord
Jakobshavns Isbræ
I S K O
B U G T
Nordre Huse
Ivîangernat
Claushavn
Aqpat
Pângnât
Qilangalik
425
Jakobsholm
Laksebugt
Rypeholm
CHRISTIANSHÅB
448
Qaqarssuaq
Savik
Kangersuneq
Grønne
Ejland
200 m
Akúnâq
Upernivik
Qeqertarmiut
Tuvssâq
262
Akugdlît
Sârdloq
Ikamiut
Nivâq
208
Akuliarusersuaq
Eqerqoq
Sydostbugten

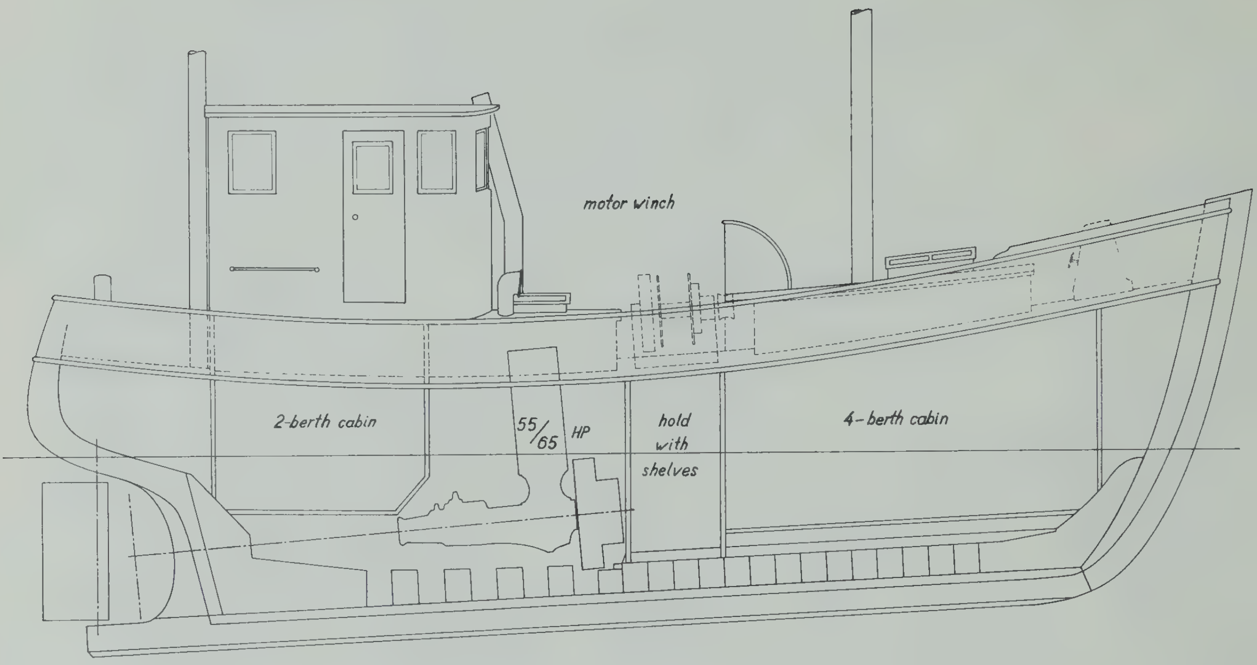


Fig. 6. The motor cutter "Porsild".

Here a laundry with electric washing machines has been set up.

The scientific leader's residence is a wooden house with 120 m² living quarters, a basement and a small extension containing a scullery, space for food storage and a spare room. The house is centrally heated by an oil stove.

In 1966 a much-needed new building was opened near the Arctic Station. This has to a great extent improved the conditions for scientific work, in particular during the busy summer time. It is a two-story building with running hot and cold water, electricity, and an automatic central heating system. On the ground floor there are a number of small rooms which are used for sorting the material which has been collected, and a herbarium, dark-room and washroom. In addition there are some storage rooms containing jars, glassware, preservation fluids, chemicals, and various appliances, such as bottom samplers, dredges, etc. On the first floor there is a library measuring 100 m² and two laboratories, 30 m² and 15 m². The library has a unique collection of books, periodicals and

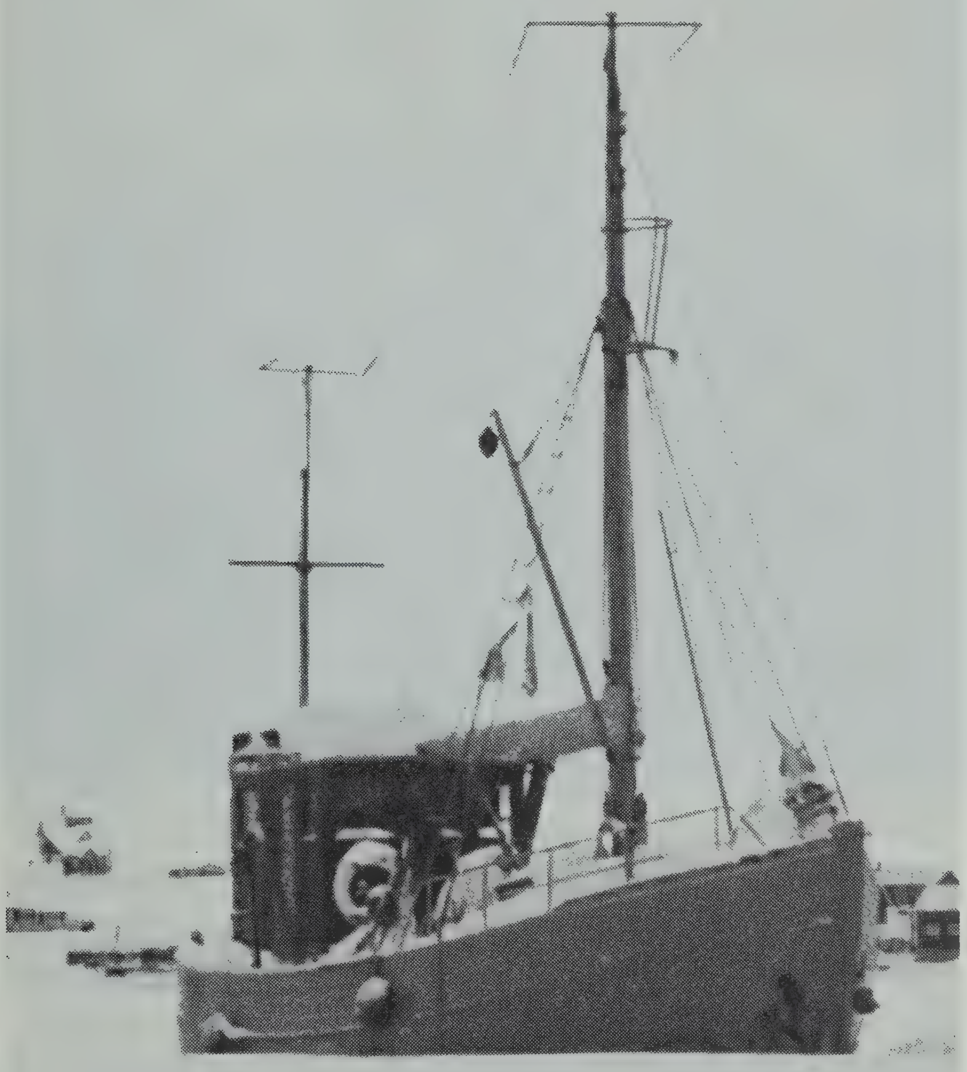


Fig. 7. The "Porsild" ice-bound in the harbour of Godhavn.

reprints, in particular dealing with topics concerning arctic biology. The two laboratories, which must be shared by the scientists present, are supplied with water, electricity, and gas, as well as a fume-hood, oven, balances, a few microscopes (dissecting and compound), plus the most common laboratory equipment and chemicals. Scientists who have special requirements are advised to bring their own microscopes and other equipment.

In all the buildings the electricity supply is 3-phase 220 volts A.C., 50 cycles. There is running water but in the winter water to the new building must be fetched in buckets from the warm spring. There are chemical toilets. Near the harbour there is a store house belonging to the Station, and transport along the 1.5 km long road from there to the Station is done in a light pick-up truck.

VESSEL

The Station has at its disposal the "Porsild", a motor cutter named after the founder of the station. It was built in 1958/59 at Holbæk shipyard, and weighs just under 20 tons; length: 36 feet; speed: 7 knots. The motor is a one-cylindered 55/65 h.p. Hundested. On the boat there is an echo-sounder and radio-telephone. The boat can be equipped with a winch for small marine-biological gear but not for proper fishing nets. There is a cabin before the mast with kitchen equipment and four berths, and a cabin astern with two berths; they are both oil-stove heated. Amidships under the winch there is a hold.

FIELD HUTS

There is a small hut belonging to the Station at the head of Disko Fjord and a larger one in Nordfjord. They are both primitive wooden shacks but can be used for spending the night.

GODHAVN TOWNSHIP

The township of Godhavn consists of the town Godhavn, which has a population of approx. 800, and the two trading stations, Kronprinsens Ejland and Disko Fjord, each of which has approx. 100 inhabitants, and the Loran station Nipisat

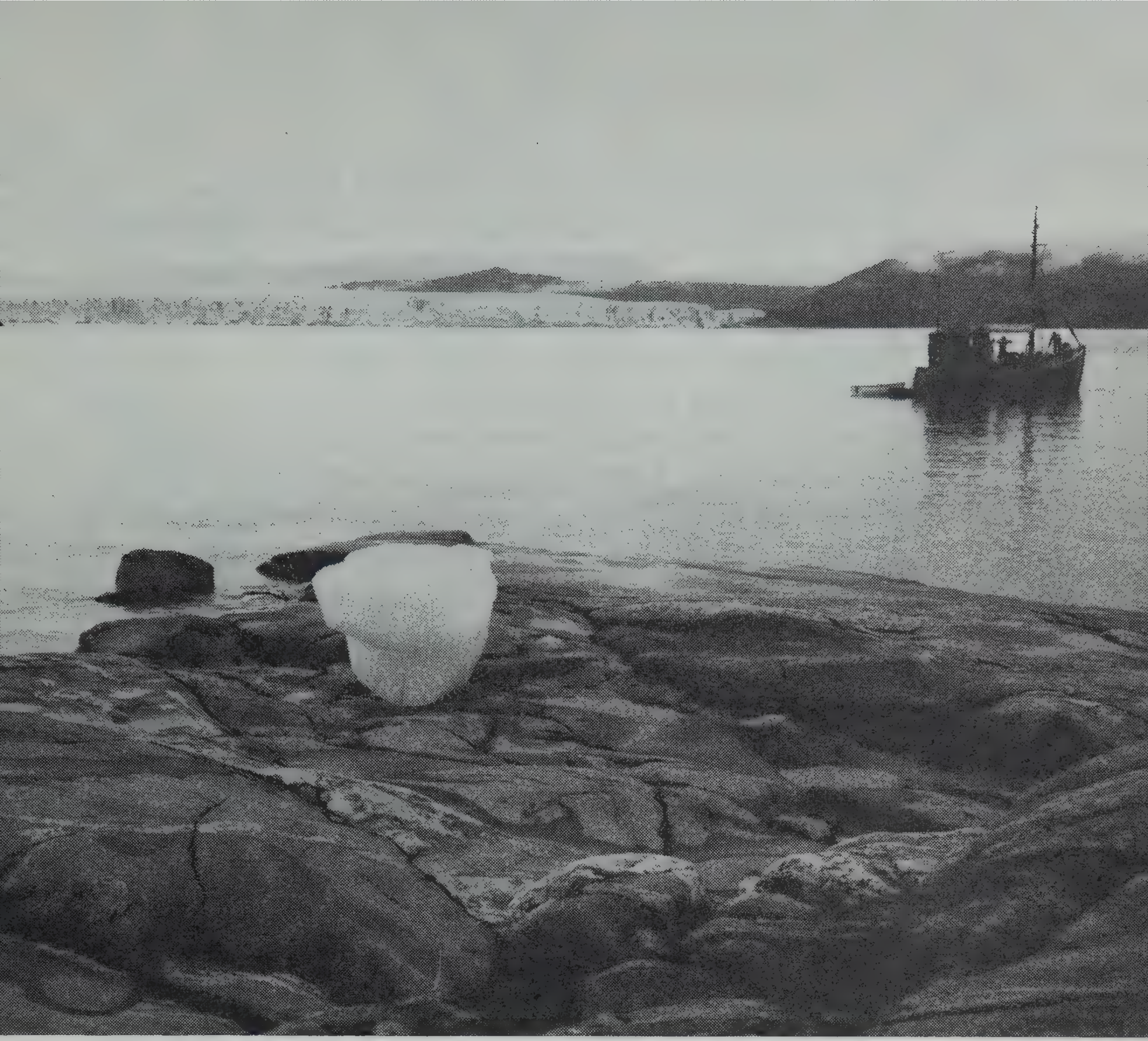


Fig. 8. The "Porsild" in front of a glacier.

with approx. 30 inhabitants. The languages in use are Greenlandic and Danish.

Godhavn is a town which has developed around the excellent natural harbour and near the, for Greenland conditions, exceptionally good water supply from the warm springs where the water is 2-4°C throughout the year and never freezes during the winter.

There is a school with four or five teachers as well as a hospital with a doctor and some nurses, a dental clinic and a church with a clergyman and a catechist. The electricity (220 volts A.C. 50 cycles) is supplied by a modern power station. On the whole, Kongelige Grønlandske Handel (K. G. H.) takes care of the town's supplies, whereas works of construction and maintenance are seen to by Grønlands Tekniske Organisation (G. T. O.). K. G. H. has a shop, an office and a warehouse. The shop has an extensive stock of goods, and any reasonable demands in regard to clothing and provisions can be satisfied. Moreover, there is a selection of skiing equipment, appliances for photography, fishing, hunting and camping, as well as tobacco, wines and liquors. Powdered or condensed milk is obtainable. Meat can be gotten either frozen or tinned from Denmark or fresh from the local game such as wild fowls, seals, whales and fish. K. G. H. has a monopoly on the trade of certain goods. There are also a few private shops.

G. T. O. has some workshops and a stock of spare parts and materials for the cars, electricity, plumbing, etc. A number of Danish and Greenlandic skilled labourers are employed by G. T. O. There are also some private repairmen in the town.

In Godhavn there are a large number of institutions; besides the Arctic Station there are the following:

THE IONOSPHERE-STATION: measures the ionospheric conditions, radio astronomy, earth currents, etc. It is manned by at least one Danish scientist and, at times, several.

THE MAGNETIC OBSERVATORY: measures the terrestrial magnetism, aurora borealis, sunhours, temperatures and precipitation. It is manned by a scientist and a couple of assistants.

THE TELEGRAPH STATION: collects facts about the weather for ICAO. It is open day and night also for telegraphs and radiotelephone calls. It has a teleprinter centre and is manned by 18 telegraph operators and technicians.

THE RADIO STATION: retransmits the programme from Greenland's broadcasting-service in Godthåb to the towns in North Greenland, from Upernavik to Holsteinsborg.

THE LORAN STATION "NIPISAT" is a part of the North Atlantic line of radionavigation and is situated approx. 40 km west of Godhavn. It is manned by 30 men.

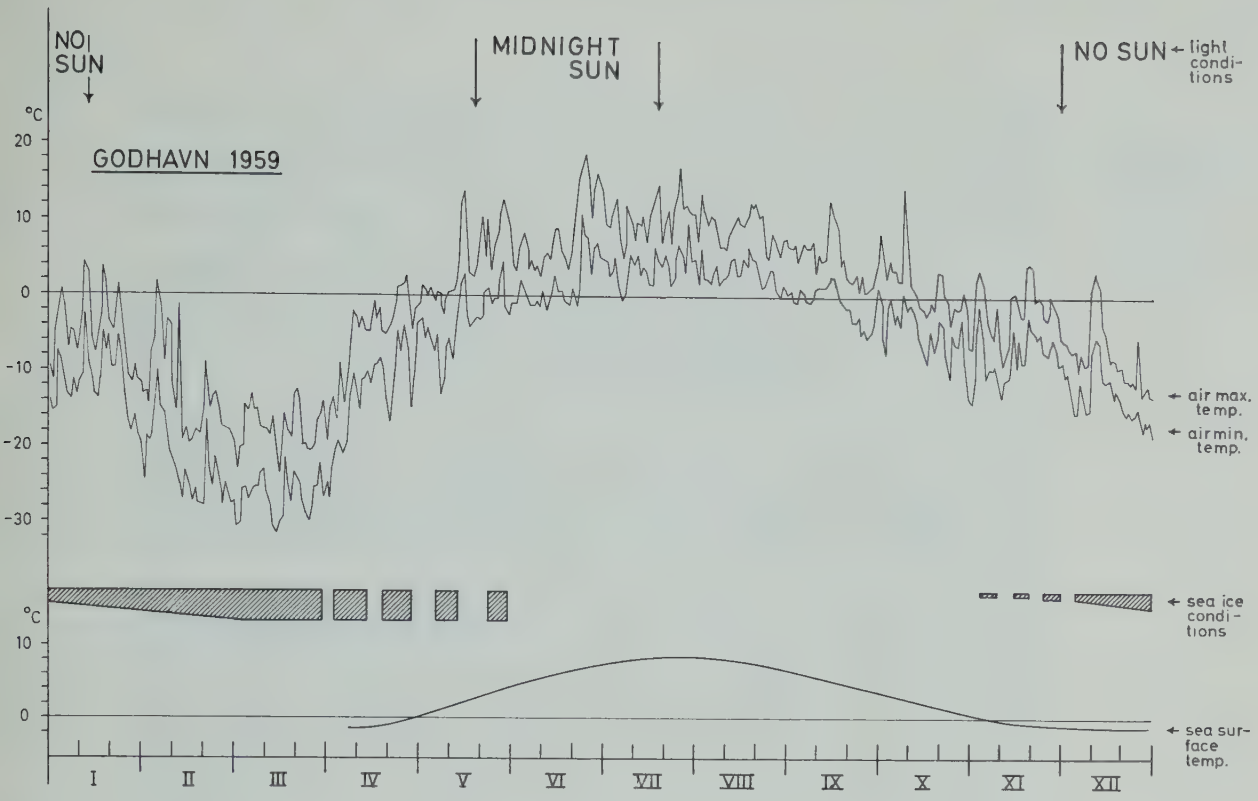


Fig. 9. An example of the seasonal variation of sunlight, air temperature, sea ice and sea surface temperatures.

GEOLOGY OF THE AREA

The buildings of the Arctic Station are erected on precambrian rocks on the border of a tertiary basalt breccie which stands as a steep slope, "Østerlien", just behind the station.

The town of Godhavn is also situated on precambrian rocks. Between the mounds there are elevated marine layers. To the south, in front of the buildings, there is a lagoon which receives fresh water from the hot spring which supplies Godhavn with drinking water. The lagoon is closed off from the sea water in Disko Bay by a marine foreland called "Sorte Sand" which consists of black basalt sand which is washed down from the mountains by "Røde Elv" (Red River). "Røde Elv" has its name from great amounts of suspended red particles.

The black basalt sand comes from the enormous tertiary covering of plateau lava and vulcanic ashes which covers most of Disko Island and the Nugsuaq Peninsula north of Disko. There are numerous layers of coal on the north coast of Disko and on Nugsuaq. The coal is mined at Qugdligssat.

CLIMATE
HYDROGRAPHY
LIGHT
CONDITIONS
CLOTHING

Godhavn has an arctic climate. The diagram fig. 9 indicates the daily maximum and minimum values for the air temperature in the year 1959/60, and will give an approximate idea of the climatic conditions. It is seen that the summer temperatures are fairly high. On calm and sunny days it is nice and warm but the mosquitoes see to it that one keeps ones clothes on; efficient mosquito repellent is absolutely necessary! Storm and fog are common in the summer. Rubber boots, wind- and water-proof clothes as well as a knitted cap and mittens must be recommended for sojourn during summer. The "Foehn" (a warm wind coming down from the inland ice) is characteristic for the winter. These storms are reflected on the temperature charts by jumps of 20°C or even more in just a few hours, and are accompanied by violent wind forces. If journeys of long duration are to be made by dog-sled, Greenlandic fur clothing is indispensable. The sea off Godhavn is covered with ice from December until May. The fjords are frozen from November until June. In the summer the surface temperature is just less than 10°C and the local boys bathe in the brackish water lagoon in front of the Station.

The midnight sun can be seen from the end of May until the middle of July and the sun is below the horizont from Dec. 1st. until Jan. 13th. It is necessary to use sunglasses from March until July because of the glaring light.

THE STATION'S
HISTORY

The Arctic Station was founded in 1906 by the botanist Morten Pedersen Porsild. Dr. Porsild was head of the Station until 1946, and was succeeded by Paul Gelting, also a botanist. In 1953 the Station became attached to Copenhagen University. Since 1954 the following have been scientific leaders of the Station: 1954-1958: Ulrik Røen (limnology), 1958-1961: G. Høpner Petersen (marine biology), 1961-1964: Simon Lægård (botany), 1964-1967: Torben Andersen (ornitology), 1967-1970: Jens Böcher (entomology).

Publications from the Danish Arctic Station on Disko Island, Greenland

In the series "Publications from the Danish Arctic Station on Disko Island, Greenland" (= Arbejder fra Den Danske Arktiske Station på Disko) the Arctic Station publishes reprints of papers in which material from the Arctic Station is used. Whenever material from the Station is used the author must send a reprint to the Board, and the Station must have the privilege of buying up to 200 copies; these will be distributed to the exchange connections of the Station, as part of the above-mentioned series. It is requested that papers be forwarded either as the original manuscript or as first proof. In the series there have especially appeared papers which are reprints from "Meddelelser om Grønland". In the period from 1910 to 1967 the following 44 papers have been published:

1. Porsild, M.P.: Hvor opholder den grønlandske Laks sig om Vinteren? (Reprinted from Meddr Grønland *47, 4:* 229-236, 1910).
2. – List of Vascular Plants from the South Coast of the Nugsuaq Peninsula in West Greenland. (Reprinted from Meddr Grønland *47, 5:* 238:248, 1910).
3. – The Plant-Life of Hare Island off the coast of West Greenland. (Reprinted from Meddr Grønland 47, 6, 1910).
4. – Actinometrical observations from Greenland. (Reprinted from Meddr Grønland *47, 9*: 361-374, 1911).
5. – Une arme ancienne de chasse des Esquimaux et son analogue de la culture prehistorique de France. (Reprinted from Meddr Grønland *47, 10*: 377-380, 1911).
6. – Vascular Plants of West-Greenland between 17° and 73° N. lat. (Reprinted from Meddr Grønland *50, 7*: 351-389, 1912).
7. – Studies on the Material Culture of the Eskimo in West-Greenland. (Reprinted from Meddr Grønland *51, 5*: 113-250, 1914).
8. – Naturfredning i Dansk Grønland. (Reprinted from Meddr Grønland *51, 6*: 253-263, 1914).
9. – On the Genus Antennaria in Greenland. (Reprinted from Meddr Grønland *51, 7*: 267-281, 1915).
10. – Om nogle vestgrønlandske Pattedyr og Fugle. I. Om Ulve, Hunde og Rensdyr i Vestgrønland. II. Den store Narhvale-"Søvs" i Disko-Bugt Vinteren 1914-1915. (Reprinted from Meddr Grønland *56, 2*: 31-54, 1916).
11. – assisted by A.E. Porsild: The Flora of Disko Island and the Adjacent Coast of West Greenland from 66°-71° N. lat. (Reprinted from Meddr Grønland *58, 1*, 156 00, 1920).

12. Porsild, A.E. Contributions to the Flora of West Greenland at 70°-71°45′ N. lat. (Reprinted from Meddr Grønland *58, 2*: 157-196, 1926).

13. Porsild, M.P. Stray Contributions to the Flora of Greenland I-V. (Reprinted from Meddr Grønland *77,1*, 1930).

14. – Alien Plants and Apophytes of Greenland. (Reprinted from Meddr Grønland *92, 1*, 85 pp., 1932).

15. – Stray Contributions to the Flora of Greenland VI-XII. (Reprinted from Meddr Grønland *93, 3*, 94 pp., 1935).

16. – Stray Contributions to the Flora of Greenland XIII-XVII. (Reprinted from Meddr Grønland *134, 4*, 94 pp., 1946).

17. Gelting, P.: A West Greenland Dryas integrifolia community rich in lichens. (Reprinted from Svensk Bot. Tidsskr. 49, 1955).

18. – Parmelia subaurifera Nyl. and P. fraudans (Nyl.) Nyl. in Greenland. (Reprinted from Friesia 5: 240-246, 1956).

19. Baer, J.G.: Parasitic Helminths collected in West Greenland. (Reprinted from Meddr Grønland *124, 10*, 55 pp., 1956).

20. Böcher, T.W.: Hieracium acranthophorum var. isortoqense var. nov. with remarks on the section Foliosa in Greenland. (Reprinted from Botanisk Tidsskr. *53*: 279-283, 1957).

21. Jørgensen, C.A. & Th. Sørensen & M. Westergaard: The flowering plants of Greenland. A taxonomical and cytological survey. 1958. (Reprinted from Biol. Skr. Dan. Vid. Selsk. bd. 9, nr. 4, 172 pp).

22. Røen, U.: Tre års arbejde på Arktisk Station. (Reprinted from Tidsskr. Grønland, Feb. 1958).

23. – Studies on freshwater entomostraca in Greenland. I. Artemiopsis stefanssoni Johansen in Greenland.

Holmquist, C.: An observation on young specimens of Ammodytes dubius (Reprinted from Meddr Grønland *159, 2*, 14 pp., 1958).

24. – On a new species of the genus Mysis, with some notes on Mysis oculata (O. Fabricius). (Reprinted from Meddr Grønland *159, 4*, 17 pp., 1958).

25. Böcher, T.W.: Floristic and ecological studies in middle West Greenland. (Reprinted from Meddr Grønland *156,5*, 68 pp., 4 plates, 1959).

26. Holmquist, C.: Problems on marine-glacial relicts on account of investigations on the genus Mysis. (Thesis). Lund 1959, 270 pp.

27. Böcher, T.W.: Tetraploid and hexaploid Trisetum spicatum coll. A cytotaxonomical study. (Reprinted from Botanisk Tidsskr. 55: 23-29, 1959).

28. Ellis, D.V.: Marine infaunal benthos in arctic North America. (Reprinted from Arct. Inst. N. Am., Tech. Paper 5, 55 pp., 1960).

29. Böcher, T.W.: Studies in Pyrolaceae. – two interesting wintergreens from West Greenland. (Reprinted from Botanisk Tidsskr. 57: 28-27, 1961).

30. Check-list of vascular plants of Greenland. (Edit.: Universitetets Arktiske Station, Godhavn, Disko 1961).

31. Petersen, G. Høpner: The distribution of Balanus balanoides (L.) and Littorina saxatilis Olivi var. groenlandica Mencke in Northern West Greenland. (Reprinted from Meddr Grønland *159, 9*, 42 pp., 2 plates, 1962).

32. Böcher, T.W.: A cytological and morphological study of the species hybrid Chamaenerion angustifolium x C. latifolium. (Reprinted from Botanisk Tidsskr. 58: 1-34, 1962).
33. Røen, U.: Studies on freshwater entomostraca in Greenland II. Localities, ecology and geographical distribution of the species. (Reprinted from Meddr Grønland *170, 2,* 249 pp., 9 plates, 1962).
34. Letteval, U.: On the hydracarina of Greenland with a description of Lebertia (Pseudolebertia) groenlandica n. sp. (Reprinted from Meddr Grønland *170, 1,* 40 pp, 1962).
35. Böcher, T.W. & S.Lægaard: Botanical studies along the Arfersiorfik fjord, West Greenland. (Reprinted from Botanisk Tidsskr. 58: 168-190, 1962).
36. Hansen, K.: Macrolichens from Central West Greenland collected on the botanical expedition in 1958. (Reprinted from Meddr Grønland *163, 6,* 64 00, 5 plates, 1962).
37. Hansen, Kaj: Lagoon Sediments in Greenland. (Reprinted from Developments in Sedimentology 1: 165-169, Amsterdam 1964).
38. Böcher, T.W.: Phytogeography of Middle West Greenland. (Reprinted from Meddr Grønland *148,3,* 289 pp, 10 plates, 1963).
39. Petersen, G Høpner: The Hydrography, Primary Production, Bathymetry and "Tagsaq" of Disko Bugt, West Greenland (Reprinted from Meddr Grønland *159, 10,* 45 pp, 1964).
40. Wolff, Niels L.: The lepidoptera of Greenland. (Reprinted from Meddr Grønland *159, 11,* 75 pp, 21 plates, 1964).
41. Nielsen, Erik Tetens and Hedvig Tetens Nielsen: Observations on Mosquitoes in Greenland. (Reprinted from Meddr Grønland *170, 3,* 27 pp, 1966).
42. Petersen, G.Høpner: Balanus balanoides (L.) (Cirripedia) Life cycle and growth in Greenland. (Reprinted from Meddr Grønland *159, 12,* 114 pp, 38 plates, 1966).
43. Holm, Åke: Spiders (Araneae) from West Greenland. (Reprinted from Meddr Grønland *184, 1,* 99 pp, 1967).
44. Biebl, Richard: Kurztag-Einflüsse auf arktische Pflanzen während der arktischen Langtage. (Reprinted from Planta (Berl.) *75*: 77-84, 1967).

Other Publications

a1. Porsild, M.P.: Foran revisionen af loven om Grønlands Styrelse. Foredrag holdt for Den Danske Rigsdag den 17. marts 1920 af mag.sc. Morten P. Porsild. Kbhvn. 1920, 30 pp.

a2. – Om de grønlandske kommunale kasser og deres virksomhed. Godhavn 1927, 18 pp.

a3. Holmquist, C.: Proposed use of the plenary powers to validate a neotype for the nominal species "Cancer oculatus" Fabricius (O.), 1780, to designate the species so named to be the type species of the genus "Mysis" Latreille (1802-1803) (Class Crustacea, order Mysidacea) and matters incidental thereto. (Reprinted from Bull. of Zool. Nomencl. 16, *2*: 51-61, 1958).

a4. – Några iakttagelser beträffende yngel av tobisfisken Ammodytes dubius. (Reprinted from Fauna och Flora: 69-72, 1959).

a5. – Mysis polaris – a new species of the genus Mysis. (Reprinted from Kungl. Fysiogr. Sällsk. i Lund, Förh. *29, 2*: 21-25, 1959).

a6. Böcher, T.W.: Det første universitetskursus i Grønland. (Reprinted from Tidsskr. Grønland: 85-91, marts 1959).

a7. Ellis, D.V.: The benthos of soft sea-bottom in Arctic North America. (Reprinted from Nature 184, 1959).

a8. Madsen, H. and K.G. Wingstrand: Some Behavioural Reactions and Structures Enabling Birds to Endure Winter Frost in Arctic Regions. (Reprinted from Medd. Dansk Naturh. Foren. 120: 15-27, 1959).

List of works referring to the Arctic Station and Greenland:

Biebl, R.: Ein Arbeitsaufenthalt in der Arktis. – Österreich. Hochschulzeitung, 1-10-66.

Bugge, Aage: Grønlandsk rejseparlør. – Nyt Nordisk Forlag – Arnold Busck, 1952, 132 pp.

Böcher, T.W., Kjeld Holmen & Knud Jakobsen: Grønlands Flora. – Haase, København 1966, 300 pp.

B – The Flora of Greenland, Haase 1968.

Fristrup, Børge: Grønlands Geografi. – Gyldendal, København 1965, 75 pp.

– Indlandsisen. – Rhodos, København 1963, 240 pp.

Hansen, Paul H.: Nyttefisk i de grønlandske farvande. – Den Kgl. Grønlandske Handel, 1961, 84 pp.

Petersen, G. Høpner: De grønlandske rejefelter og israndslinierne. – Grønland, sept. 1965: 323-327.

Røen, U.: Trues Grønlands ferskvande af forurening. – Grønland april 1962: 137-143.

– Salt- og Brakvandsdyr i grønlandske ferskvande. – Grønland, sept. 1962: 335-341. Summary in English.

– Nogle udbredelsestyper i den grønlandske ferskvandsfauna. – Grønland, okt. 361-374. Summary in English.

B Salomonsen, Finn: The birds of Greenland. – Munksgaard, København 1950-51, 603 pp, 56 colorplates.

– Fuglene på Grønland. – Rhodos, København 1967, 344 pp., colourplates, maps.

Bogen om Grønland. Politikens Forlag, København 1962, 384 pp.

B Danish Foreign Office Journal nr. 58, 1967, 56 pp. (An edition devoted specially to Arctic Denmark).

Dansk-grønlandsk ordliste til skolebrug. – Godthaab Seminarium 1952, 35 pp.

Den Grønlandske Kommunalårbog. – Udgivet af Grønlands Landsråd.

Den Grønlandske Lods I. Vestgrønland, ved Eigil Riss-Carstensen. – J. H. Schultz, København 1948, 365 pp.

B Greenland. – The Royal Danish Ministry for Foreign Affairs, 166 pp.

Greenland. Fascinating part of a greater Denmark. – Den Kgl. Grønlandske Handel 1960.

Greenland. Edit. M. Vahl, G. C. Amdrup, L. Bobé, Ad. S. Jensen. vol. I, 575 pp, vol. II, 415 pp, vol. III, 468 pp. – C. A. Reitzel 1928.

Grønlandsbogen. Edit. K. Birket-Smith, E. Mentze & N. Friis Møller. – J. H. Schultz, 1950, I. 319 pp, II. 354 pp.

Maps of the area:

Maps:

Grønland 1:250,000, 69 V. 1 Godhavn, Geodetic Institute, Copenhagen.
Grønland 1:5.000,000, Geodetic Institute, Copenhagen.
Blæsedals området ved Godhavn, Bl. 69 V. 1, 1:20,000.

Navigational charts:

West Coast of Greenland, 1550, 1500, 1511. (Royal Danish Hydrographic Office, Copenhagen).

Pam: 061

Author

Title University of Copenhagen
~~Arctic Station~~

Borrower's Name

Date Due

Pam. 061
University of Copenhagen.
Arctic Station.

Boreal Institute for Northern
Studies Library
CW 401 Bio Sci Bldg
The University of Alberta
Edmonton, AB Canada T6G 2E9

THE BOREAL INSTITUTE
LIBRARY

NORDLUNDES BOGTRYKKERI, KØBENHAVN

Date Due

bd CAT. NO. 23 233 PRINTED IN U.S.A.

University of Alberta Library
0 1620 0330 5347